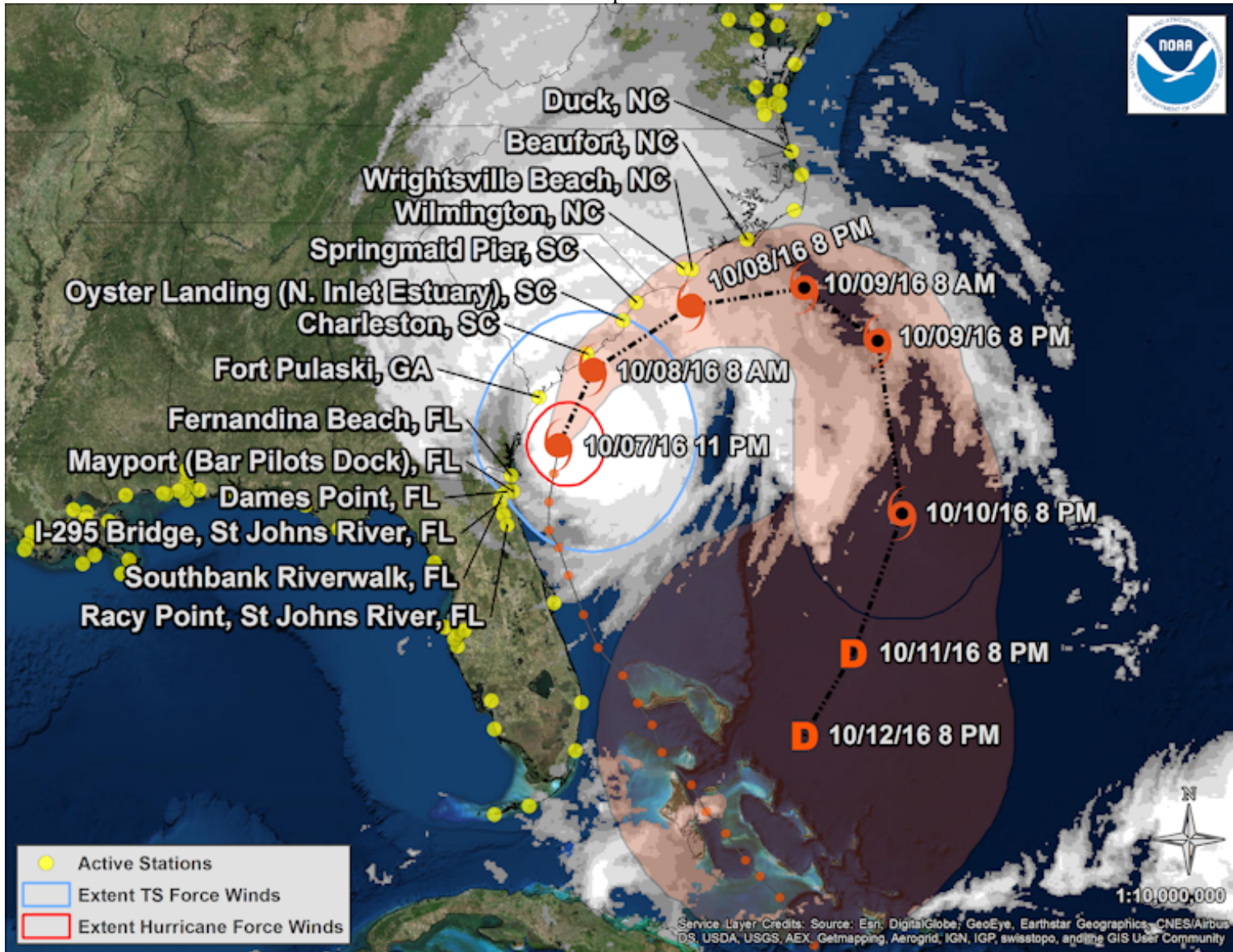




Hurricane MATTHEW QuickLook Posted: 00:00 EDT 10/08/2016

NOAA and NOAA Partnership Stations Relative to the Storm



Storm Analysis

As of 10/8/2016 00:00 EDT, water levels from northern Florida to North Carolina are rising or remain elevated due to Hurricane Matthew. Water levels from Fort Pulaski, GA to Springmaid Pier, SC generally range from 2 to just over 4 feet above normal tide levels at this time. Along the North Carolina Coast, water levels are measuring about 1 to 2 feet above tidal predictions. Water levels within St. Johns River, FL remain high, especially upriver from Southbank Riverwalk to Racy Point, where water levels range from 3 to 4 feet above normal (tidal) levels. Another

high tide will be occurring across much of the region in the early morning hours which may push water levels even higher.

Along the Atlantic coast, the highest peak water level based on preliminary observations was measured at Fernandina Beach, FL at 4.17 feet above Mean Higher High Water. The water level plot for this station displays an erroneous higher reading, possibly due to debris below the sensor. The NOS station at Red Bay Point within St. Johns River has been removed from this product as the station was likely damaged or destroyed earlier in the day.

Winds from the entrance of St. Johns River at Mayport, FL north to Springmaid Pier, SC presently range from 30 to 40 knots with some gusts over 50 knots measured at Fort Pulaski, GA over the past 6 hours. Barometric pressure is dropping rapidly at Fort Pulaski, GA and Charleston, SC as Matthew approaches and has bottomed out at Fernandina Beach, FL and through the Jacksonville region.

Water Level and Meteorological plots available below are updated automatically. A line denoting Mean Higher High Water (MHHW) is displayed to provide an approximate indication of when flooding inundation may occur.

For additional data, please see the [Center for Operational Oceanographic Products & Services](#) website. For more information or archived products and reports, please see the [Storm QuickLook](#) Homepage.

Analyst: PFF

NATIONAL HURRICANE CENTER PUBLIC ADVISORY:

BULLETIN HURRICANE MATTHEW ADVISORY NUMBER 40
NWS NATIONAL HURRICANE CENTER MIAMI FL
1100 PM EDT FRI OCT 07 2016

...EYE OF HURRICANE MATTHEW CONTINUING NORTHWARD JUST OFF OF THE COAST OF GEORGIA...

...STORM SURGE FLOODING CONTINUES IN FLORIDA AND GEORGIA...

SUMMARY OF 1100 PM EDT...0300 UTC...INFORMATION

LOCATION...31.2N 80.5W
ABOUT 70 MI...115 KM SSE OF SAVANNAH GEORGIA
ABOUT 115 MI...185 KM SSW OF CHARLESTON SOUTH CAROLINA
MAXIMUM SUSTAINED WINDS...105 MPH...165 KM/H
PRESENT MOVEMENT...N OR 10 DEGREES AT 12 MPH...19 KM/H
MINIMUM CENTRAL PRESSURE...948 MB...28.00 INCHES

WATCHES AND WARNINGS

CHANGES WITH THIS ADVISORY:

The Hurricane Warning is changed to a Tropical Storm Warning from north of Flagler/Volusia county line to Fernandina Beach, Florida.

SUMMARY OF WATCHES AND WARNINGS IN EFFECT:

A Hurricane Warning is in effect for...

* North of Fernandina Beach to Surf City

A Hurricane Watch is in effect for...

* North of Surf City to Cape Lookout

A Tropical Storm Warning is in effect for...

* North of Surf City to Duck

* Pamlico and Albemarle Sounds

* north of Flagler/Volusia county line to Fernandina Beach

For storm information specific to your area, including possible inland watches and warnings, please monitor products issued by your local National Weather Service forecast office.

DISCUSSION AND 48-HOUR OUTLOOK

At 1100 PM EDT (0300 UTC), the center of Hurricane Matthew was located near latitude 31.2 North, longitude 80.5 West. Matthew is moving toward the north near 12 mph (19 km/h) and this motion is expected to continue tonight. A turn toward the north-northeast and then to the northeast is expected on Saturday. On the forecast track, the center of Matthew will continue to move near or over the coast of Georgia through tonight, near or over the coast of South Carolina later tonight and Saturday, and near the coast of southern North Carolina on Saturday night.

Maximum sustained winds are near 105 mph (165 km/h) with higher gusts. Although weakening is forecast during the next 48 hours, Matthew is expected to remain a hurricane while the center is near the coast.

Hurricane-force winds extend outward up to 60 miles (95 km) from the center and tropical-storm-force winds extend outward up to 185 miles (295 km). NOAA buoy 41008 located off of the Georgia coast recently reported sustained winds of 54 mph (87 km/h) and a wind gust of 72 mph (115 km/h).

The estimated minimum central pressure is 948 mb (28.00 inches).

HAZARDS AFFECTING LAND

WIND: Hurricane and tropical storm conditions are expected to continue over the warning area in Georgia tonight, and spread northward elsewhere within the warning area through Saturday. Tropical storm conditions in northeastern Florida should subside tonight.

Residents in high-rise buildings should be aware that the winds at the top of a 30-story building will be, on average, about one Saffir-Simpson category higher than the winds near the surface.

Hurricane conditions are possible within the Hurricane Watch and Tropical Storm Warning area in North Carolina by Saturday night or Sunday morning, with tropical storm conditions expected by Saturday morning.

STORM SURGE: The combination of a dangerous storm surge, the tide, and large and destructive waves will cause normally dry areas near the coast to be flooded by rising waters moving inland from the shoreline. The water could reach the following heights above ground if the peak surge occurs at the time of high tide...

Ponte Vedra Beach, Florida, to Edisto Beach, South Carolina, including portions of the St. Johns River...6 to 9 ft

Edisto Beach, South Carolina to Cape Fear, North Carolina...5 to 7 ft

Cape Fear to Duck, North Carolina, including portions of the Pamlico and Albemarle Sounds...2 to 4 ft

The deepest water will occur along the immediate coast in areas of onshore winds. Surge-related flooding depends on the relative timing of the surge and the tidal cycle, and can vary greatly over short distances. Large waves generated by Matthew will cause water rises to occur well in advance of and well away from the track of the center. For information specific to your area, please see products issued by your local National Weather Service forecast office.

There is a danger of life-threatening inundation during the next 36 hours along the Florida northeast coast, the Georgia coast, the South Carolina coast, and the North Carolina coast from the Volusia/Brevard county line, Florida, to Cape Fear, North Carolina. There is the possibility of life-threatening inundation during the next 48 hours from north of Cape Fear to Duck, North Carolina. For a depiction of areas at risk, please see the Prototype National Weather Service Storm Surge Watch/Warning Graphic. For information specific to your area, please see products issued by your local National Weather Service forecast office.

The Prototype Storm Surge Watch/Warning Graphic is a depiction of areas that would qualify for inclusion under a storm surge watch or warning currently under development by the National Weather Service and planned for operational use in 2017. The Prototype Graphic is available at hurricanes.gov.

RAINFALL: Matthew is expected to produce total rain accumulations of 8 to 12 inches over the Atlantic coast of the United States from eastern Georgia into eastern North Carolina and southeast Virginia...with possible isolated maximum amounts of 15 inches. This rainfall may result in life threatening flooding and flash flooding. Rains will continue to diminish across northern Florida tonight with additional amounts up to an inch possible.

TORNADOES: A tornado or two remains possible near the South Carolina coast for the remainder of tonight.

SURF: Swells generated by Matthew will continue to affect portions of the Bahamas and the east coast of Florida during the next few days, and will spread northward along the southeast U.S. coast through the weekend. These swells will likely cause life- threatening surf and rip current conditions. Please consult products from your local weather office.

NEXT ADVISORY

Next intermediate advisory at 200 AM EDT.

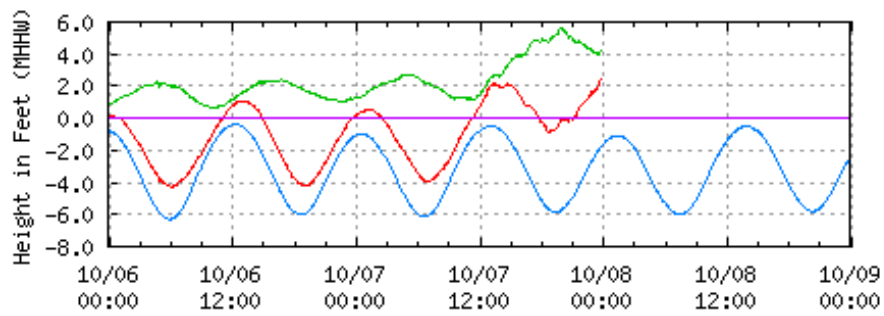
Next complete advisory at 500 AM EDT.

Forecaster Beven

For the purpose of timely release, data contained within this QuickLook have undergone a "limited" NOS Quality Assurance/Control; however, the data have not yet undergone final verification. All data subject to NOS verification.

Jump to: [Fort Pulaski - Water Level](#), [Fort Pulaski - Winds](#), [Fort Pulaski - Barometric](#), [Charleston - Water Level](#), [Charleston - Winds](#), [Charleston - Barometric](#), [Oyster Landing \(N Inlet Estuary\) - Water Level](#), [Springmaid Pier - Water Level](#), [Springmaid Pier - Winds](#), [Fernandina Beach - Water Level](#), [Fernandina Beach - Winds](#), [Fernandina Beach - Barometric](#), [Mayport \(Bar Pilots Dock\) - Water Level](#), [Mayport \(Bar Pilots Dock\) - Winds](#), [Dames Point - Water Level](#), [Southbank Riverwalk](#), [St Johns River - Water Level](#), [I-295 Bridge, St Johns River - Water Level](#), [I-295 Bridge, St Johns River - Winds](#), [I-295 Bridge, St Johns River - Barometric](#), [Racy Point, St Johns River - Water Level](#), [Wrightsville Beach - Water Level](#), [Wrightsville Beach - Winds](#), [Wrightsville Beach - Barometric](#), [Wilmington - Water Level](#), [Beaufort - Water Level](#), [Beaufort - Winds](#), [Duck - Water Level](#), [Duck - Winds](#)

NOAA/NOS/CO-OPS 8670870 Fort Pulaski, GA
Preliminary Water Level, relative to Mean Higher High Water (MHHW)



Predicted Tide — (Obs-Pred) —
Observed WL — MHHW —

Last Observed Sample: 10/07/2016 23:48 (EDT). Data relative to MHHW

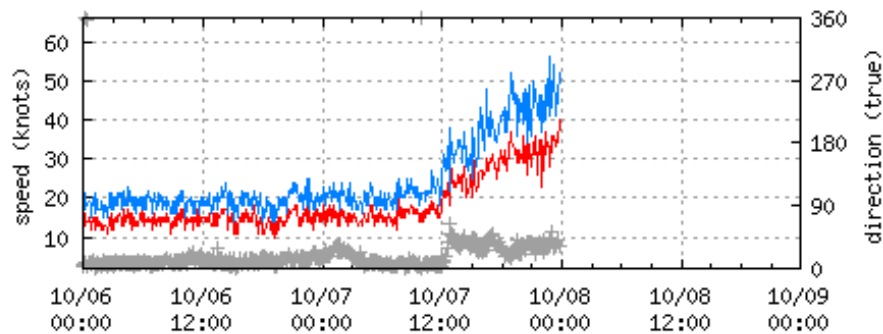
Observed: 2.54 ft. Predicted: -1.72 ft. Residual: 4.26 ft.

Historical Maximum Water Level: Oct 15 1947, 3.40 ft.

Next High Tide: 10/08/2016 01:22 (EDT), -1.07 ft.

NOAA/NOS/CO-OPS 8670870 Fort Pulaski, GA

Wind Speed / Gusts / Direction

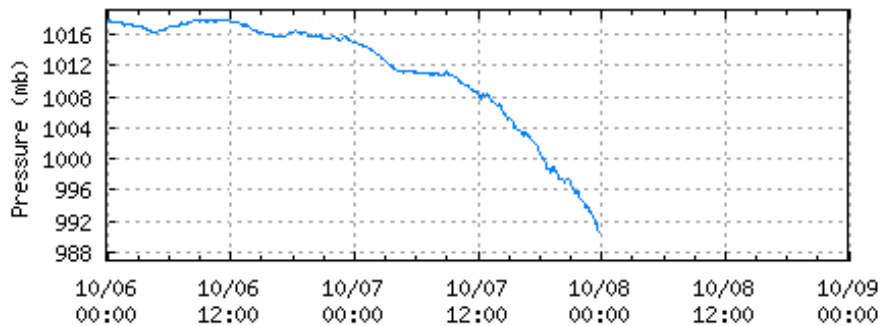


speed — gusts — direction +

Last Observed Sample: 10/07/2016 23:48 (EDT)

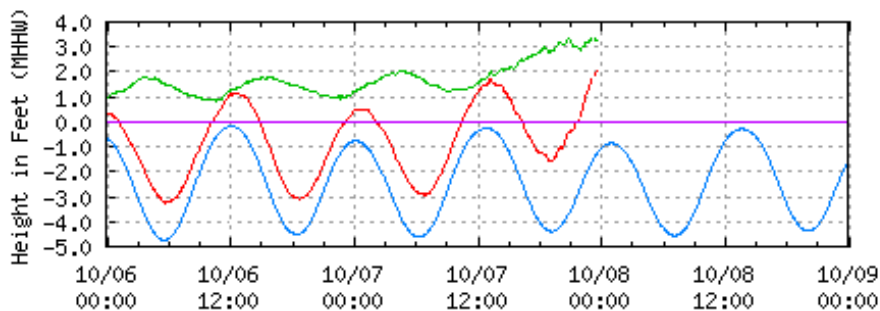
Wind Speed: 34 knots Gusts: 55 knots Direction: 31° T

NOAA/NOS/CO-OPS 8670870 Fort Pulaski, GA
Barometric Pressure



barometric pressure —
Last Observed Sample: 10/07/2016 23:48 (EDT)
Barometric Pressure: 990.1 mb

NOAA/NOS/CO-OPS 8665530 Charleston, SC
Preliminary Water Level, relative to Mean Higher High Water (MHHW)



Predicted Tide — (Obs-Pred) —
Observed WL — MHHW —

Last Observed Sample: 10/07/2016 23:54 (EDT). Data relative to MHHW

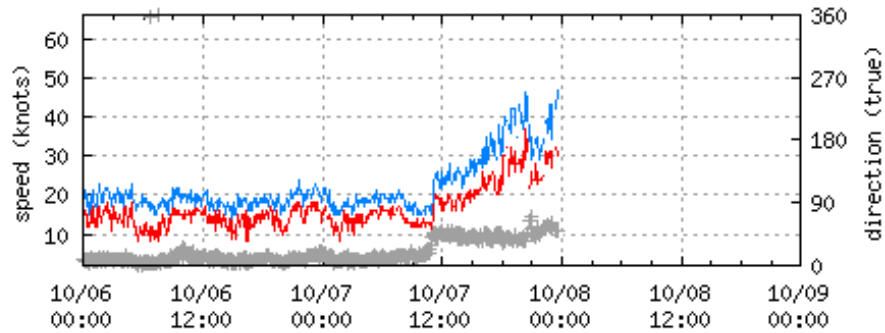
Observed: 2.22 ft. Predicted: -1.08 ft. Residual: 3.30 ft.

Historical Maximum Water Level: Sep 21 1989, 6.76 ft.

Next High Tide: 10/08/2016 00:57 (EDT), -0.86 ft.

NOAA/NOS/CO-OPS 8665530 Charleston, SC

Wind Speed / Gusts / Direction



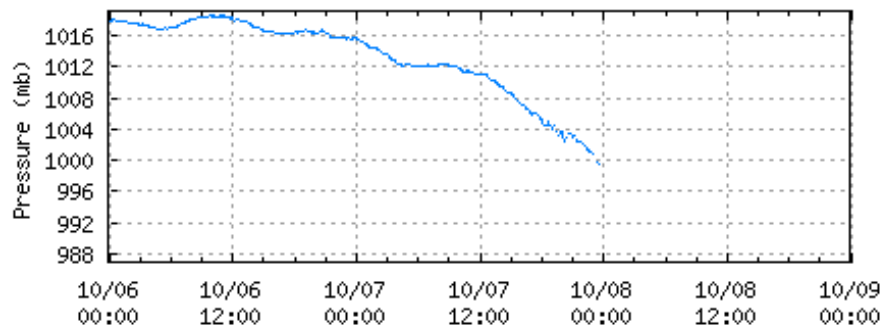
speed — gusts — direction +

Last Observed Sample: 10/07/2016 23:54 (EDT)

Wind Speed: 31 knots Gusts: 42 knots Direction: 42° T

NOAA/NOS/CO-OPS 8665530 Charleston, SC

Barometric Pressure

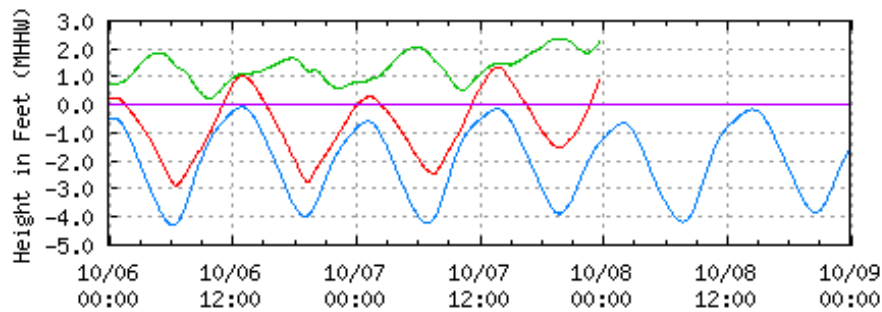


barometric pressure —

Last Observed Sample: 10/07/2016 23:54 (EDT)

Barometric Pressure: 998.3 mb

NOAA/NOS/CO-OPS 8662245 Oyster Landing (N Inlet Estuary), SC
Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Predicted Tide ——— (Obs-Pred) ———
Observed WL ——— MHHW ———

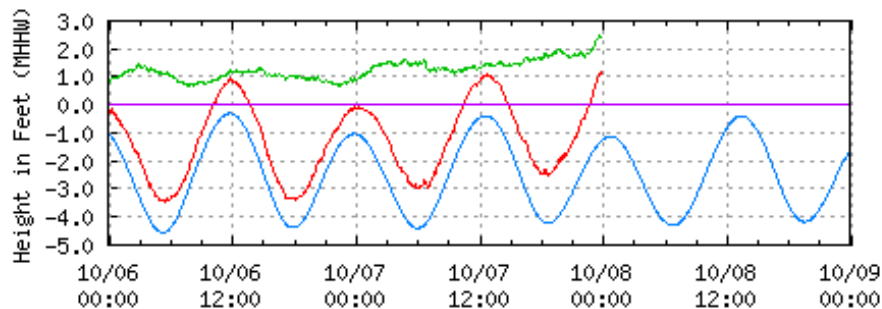
Last Observed Sample: 10/07/2016 23:48 (EDT). Data relative to MHHW

Observed: 1.07 ft. Predicted: -1.26 ft. Residual: 2.33 ft.

Historical Maximum Water Level: Aug 26 2011, 2.40 ft.

Next High Tide: 10/08/2016 01:55 (EDT), -0.65 ft.

NOAA/NOS/CO-OPS 8661070 Springmaid Pier, SC
Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Predicted Tide ——— (Obs-Pred) ———
Observed WL ——— MHHW ———

Last Observed Sample: 10/07/2016 23:54 (EDT). Data relative to MHHW

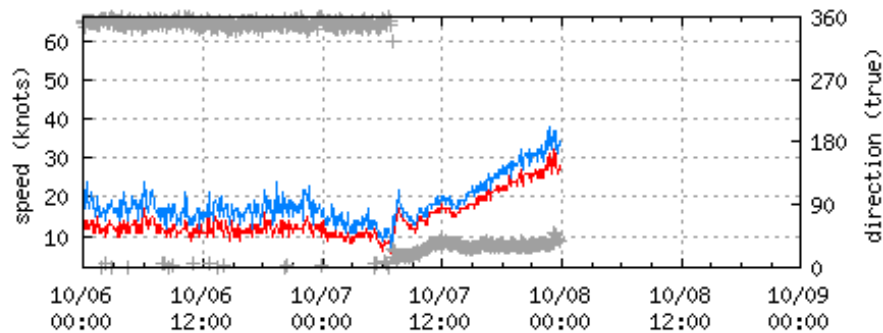
Observed: 1.27 ft. Predicted: -1.24 ft. Residual: 2.51 ft.

Historical Maximum Water Level: Jan 1 1987, 3.65 ft.

Next High Tide: 10/08/2016 00:40 (EDT), -1.13 ft.

NOAA/NOS/CO-OPS 8661070 Springmaid Pier, SC

Wind Speed / Gusts / Direction



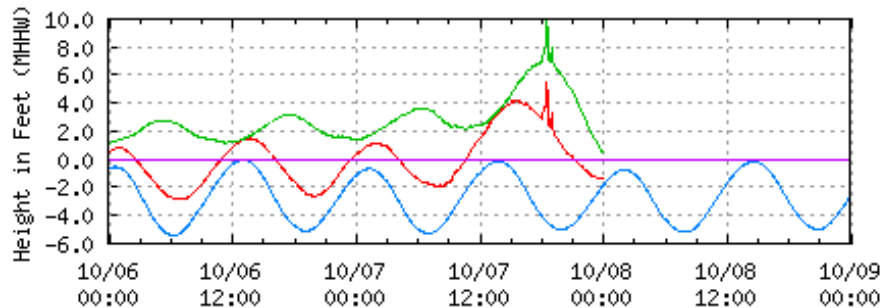
speed — gusts — direction +

Last Observed Sample: 10/07/2016 23:54 (EDT)

Wind Speed: 30 knots Gusts: 36 knots Direction: 40° T

NOAA/NOS/CO-OPS 8720030 Fernandina Beach, FL

Preliminary Water Level, relative to Mean Higher High Water (MHHW)



Predicted Tide —
Observed WL —

(Obs-Pred) —
MHHW —

Last Observed Sample: n/a. Data relative to MHHW

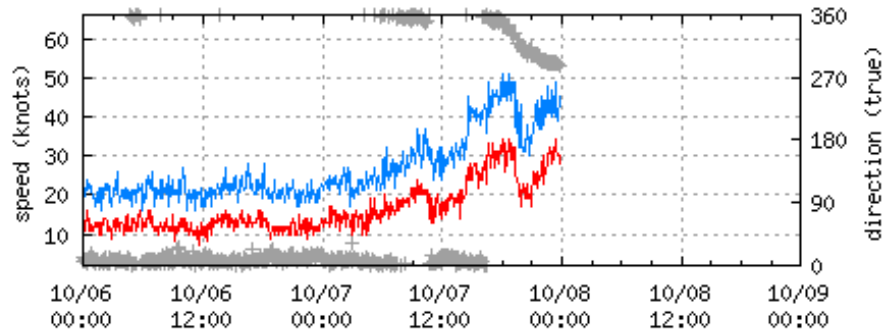
Observed: n/a Predicted: n/a Residual: n/a

Historical Maximum Water Level: n/a

Next High Tide: 10/08/2016 06:01 (UTC), -0.76 ft.

NOAA/NOS/CO-OPS 8720030 Fernandina Beach, FL

Wind Speed / Gusts / Direction



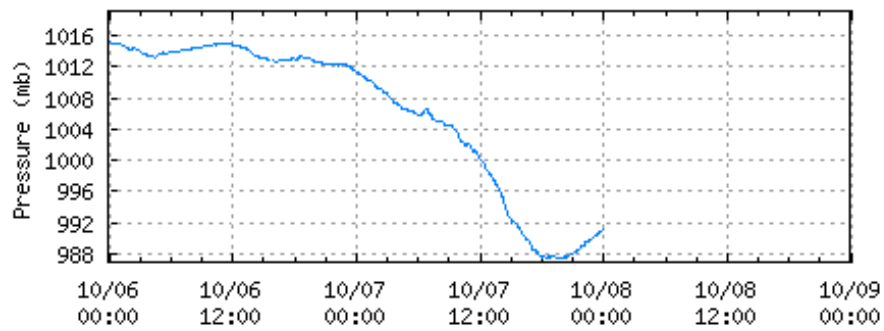
speed — gusts — direction +

Last Observed Sample: n/a

Wind Speed: 0 knots Gusts: 0 knots Direction: n/a° T

NOAA/NOS/CO-OPS 8720030 Fernandina Beach, FL

Barometric Pressure

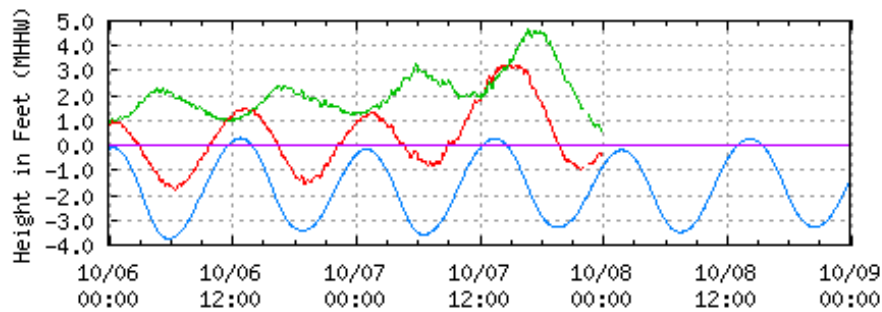


barometric pressure —

Last Observed Sample: n/a

Barometric Pressure: 0.0 mb

NOAA/NOS/CO-OPS 8720218 Mayport (Bar Pilots Dock), FL
Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Predicted Tide — (Obs-Pred) —
Observed WL — MHHW —

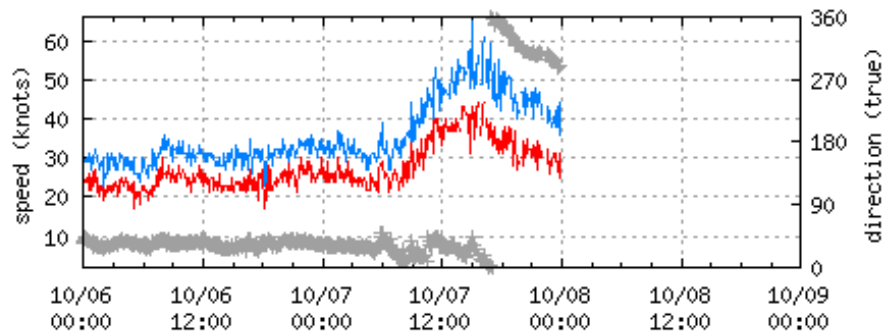
Last Observed Sample: 10/07/2016 23:48 (EDT). Data relative to MHHW

Observed: -0.35 ft. Predicted: -0.92 ft. Residual: 0.57 ft.

Historical Maximum Water Level: Sep 27 2004, 2.47 ft.

Next High Tide: 10/08/2016 01:47 (EDT), -0.18 ft.

NOAA/NOS/CO-OPS 8720218 Mayport (Bar Pilots Dock), FL
Wind Speed / Gusts / Direction

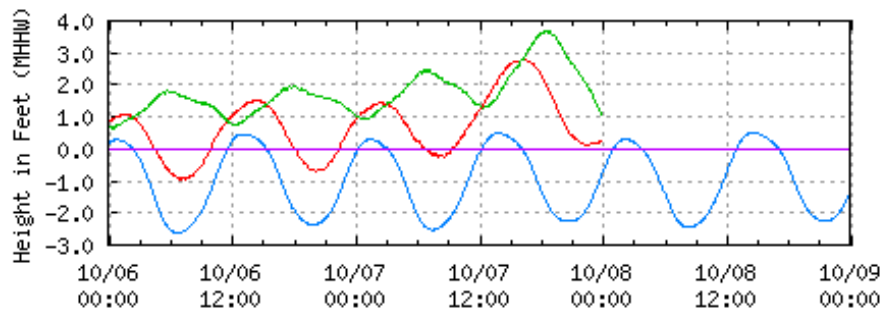


speed — gusts — direction +

Last Observed Sample: 10/07/2016 23:48 (EDT)

Wind Speed: 31 knots Gusts: 44 knots Direction: 290° T

NOAA/NOS/CO-OPS 8720219 Dames Point, FL
Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Predicted Tide ——— (Obs-Pred) ———
Observed WL ——— MHHW ———

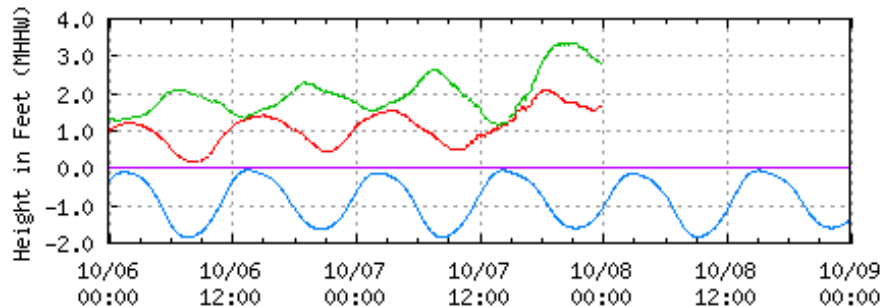
Last Observed Sample: 10/07/2016 23:48 (EDT). Data relative to MHHW

Observed: 0.24 ft. Predicted: -0.82 ft. Residual: 1.06 ft.

Historical Maximum Water Level: Sep 17 2001, 2.40 ft.

Next High Tide: 10/08/2016 02:09 (EDT), 0.31 ft.

NOAA/NOS/CO-OPS 8720226 Southbank Riverwalk, St Johns River, FL
Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Predicted Tide ——— (Obs-Pred) ———
Observed WL ——— MHHW ———

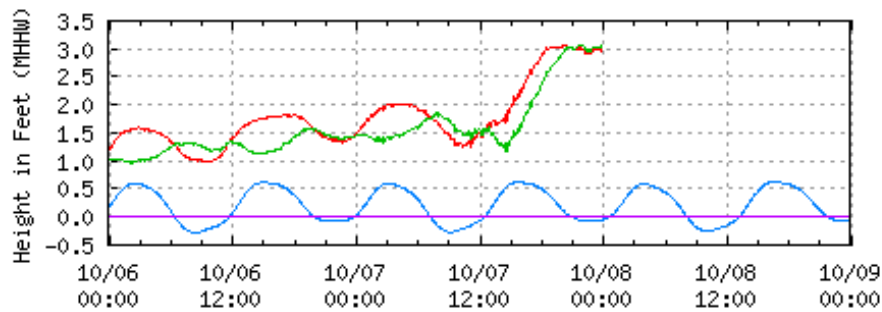
Last Observed Sample: 10/07/2016 23:48 (EDT). Data relative to MHHW

Observed: 1.67 ft. Predicted: -1.11 ft. Residual: 2.78 ft.

Historical Maximum Water Level: Sep 27 2004, 3.44 ft.

Next High Tide: 10/08/2016 02:50 (EDT), -0.15 ft.

NOAA/NOS/CO-OPS 8720357 I-295 Bridge, St Johns River, FL
Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Predicted Tide — (Obs-Pred) —
Observed WL — MHHW —

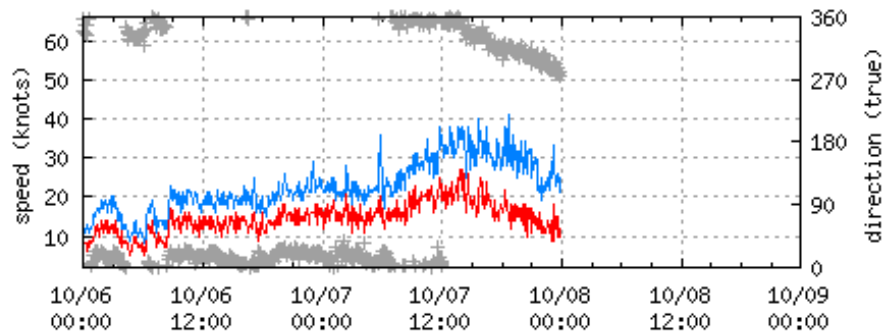
Last Observed Sample: 10/07/2016 23:48 (EDT). Data relative to MHHW

Observed: 3.00 ft. Predicted: -0.05 ft. Residual: 3.05 ft.

Historical Maximum Water Level: Sep 27 2004, 3.46 ft.

Next High Tide: 10/08/2016 03:55 (EDT), 0.58 ft.

NOAA/NOS/CO-OPS 8720357 I-295 Bridge, St Johns River, FL
Wind Speed / Gusts / Direction

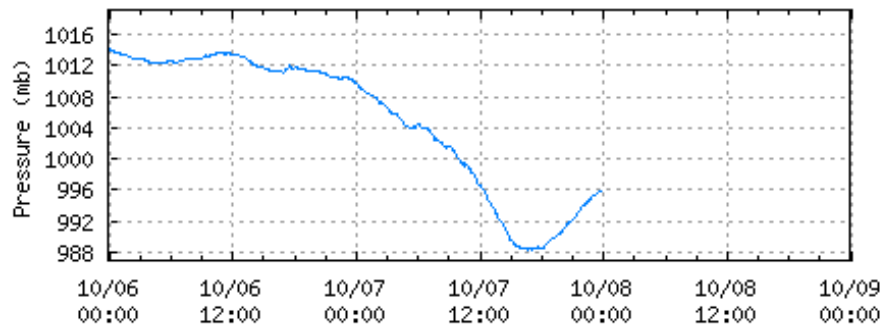


speed — gusts — direction +

Last Observed Sample: 10/07/2016 23:48 (EDT)

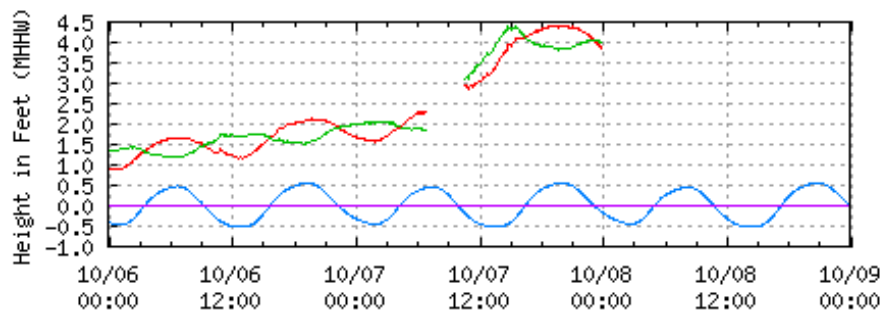
Wind Speed: 10 knots Gusts: 25 knots Direction: 275° T

NOAA/NOS/CO-OPS 8720357 I-295 Bridge, St Johns River, FL
Barometric Pressure



barometric pressure —
Last Observed Sample: 10/07/2016 23:48 (EDT)
Barometric Pressure: 995.9 mb

NOAA/NOS/CO-OPS 8720625 Racy Point, St Johns River, FL
Preliminary Water Level, relative to Mean Higher High Water (MHHW)



Predicted Tide — (Obs-Pred) —
Observed WL — MHHW —

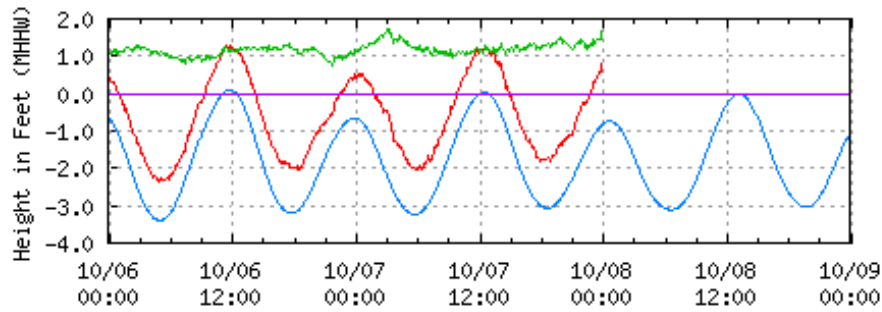
Last Observed Sample: 10/07/2016 23:48 (EDT). Data relative to MHHW

Observed: 3.85 ft. Predicted: -0.15 ft. Residual: 4.00 ft.

Historical Maximum Water Level: n/a

Next High Tide: 10/08/2016 08:10 (EDT), 0.45 ft.

NOAA/NOS/CO-OPS 8658163 Wrightsville Beach, NC
Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Predicted Tide — (Obs-Pred) —
Observed WL — MHHW —

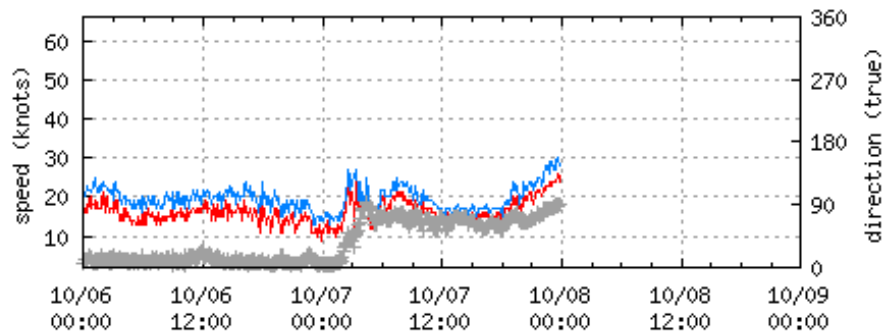
Last Observed Sample: 10/07/2016 23:54 (EDT). Data relative to MHHW

Observed: 0.85 ft. Predicted: -0.82 ft. Residual: 1.67 ft.

Historical Maximum Water Level: Sep 25 2008, 2.81 ft.

Next High Tide: 10/08/2016 00:35 (EDT), -0.74 ft.

NOAA/NOS/CO-OPS 8658163 Wrightsville Beach, NC
Wind Speed / Gusts / Direction

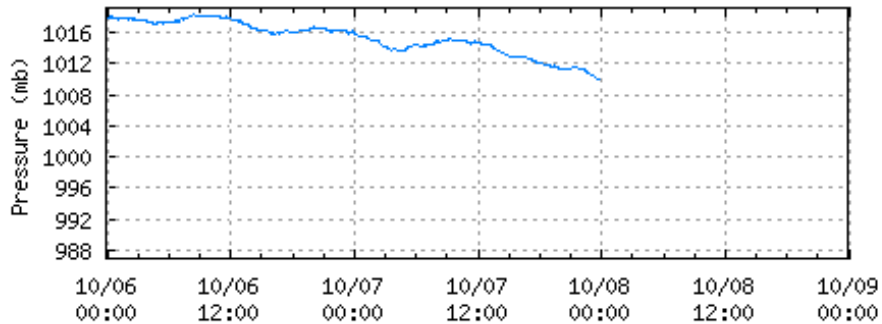


speed — gusts — direction +

Last Observed Sample: 10/07/2016 23:54 (EDT)

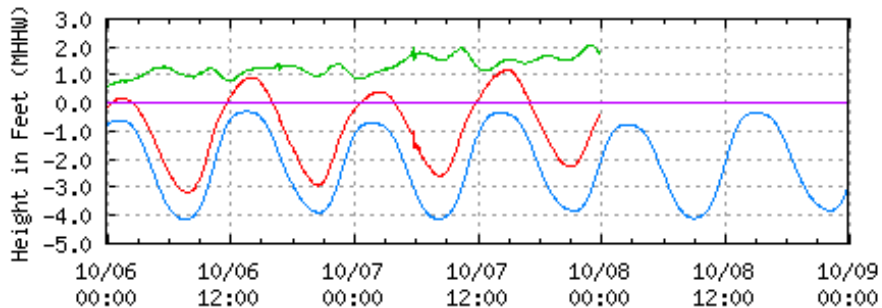
Wind Speed: 26 knots Gusts: 31 knots Direction: 89° T

NOAA/NOS/CO-OPS 8658163 Wrightsville Beach, NC
Barometric Pressure



barometric pressure —
Last Observed Sample: 10/07/2016 23:54 (EDT)
Barometric Pressure: 1009.7 mb

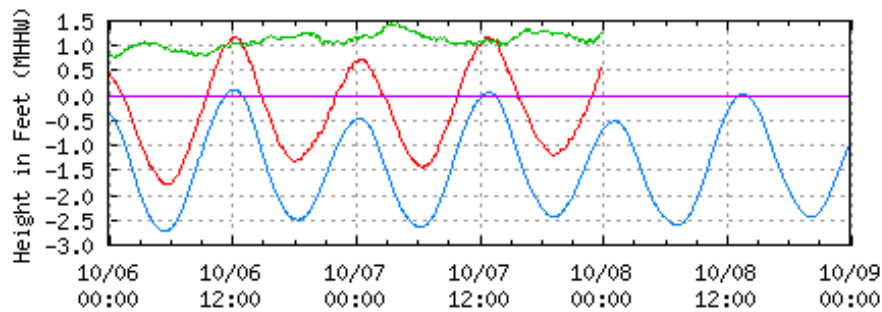
NOAA/NOS/CO-OPS 8658120 Wilmington, NC
Preliminary Water Level, relative to Mean Higher High Water (MHHW)



Predicted Tide — (Obs-Pred) —
Observed WL — MHHW —

Last Observed Sample: 10/07/2016 23:54 (EDT). Data relative to MHHW
Observed: -0.36 ft. Predicted: -2.07 ft. Residual: 1.71 ft.
Historical Maximum Water Level: Oct 15 1954, 3.47 ft.
Next High Tide: 10/08/2016 02:26 (EDT), -0.76 ft.

NOAA/NOS/CO-OPS 8656483 Beaufort, NC
Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Predicted Tide — (Obs-Pred) —
Observed WL — MHHW —

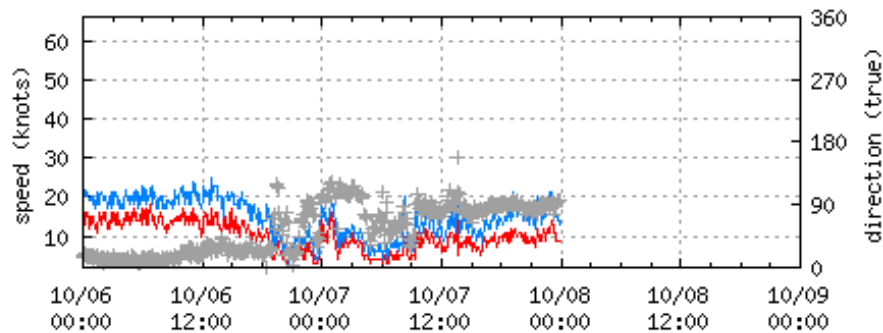
Last Observed Sample: 10/07/2016 23:48 (EDT). Data relative to MHHW

Observed: 0.55 ft. Predicted: -0.72 ft. Residual: 1.27 ft.

Historical Maximum Water Level: Sep 14 2005, 3.01 ft.

Next High Tide: 10/08/2016 01:04 (EDT), -0.51 ft.

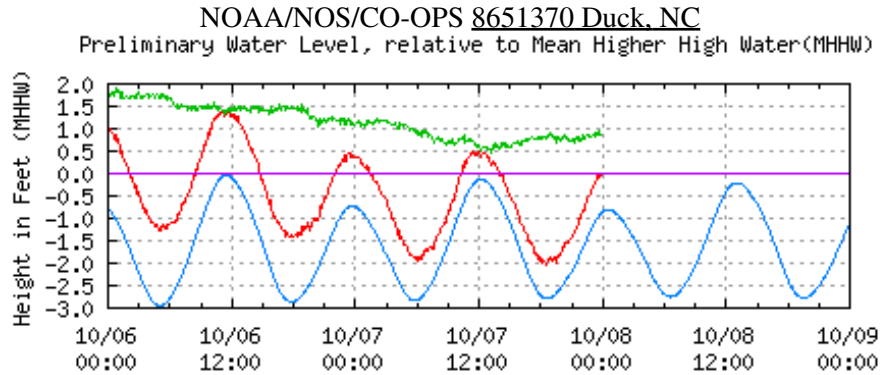
NOAA/NOS/CO-OPS 8656483 Beaufort, NC
Wind Speed / Gusts / Direction



speed — gusts — direction +

Last Observed Sample: 10/07/2016 23:48 (EDT)

Wind Speed: 9 knots Gusts: 13 knots Direction: 97° T



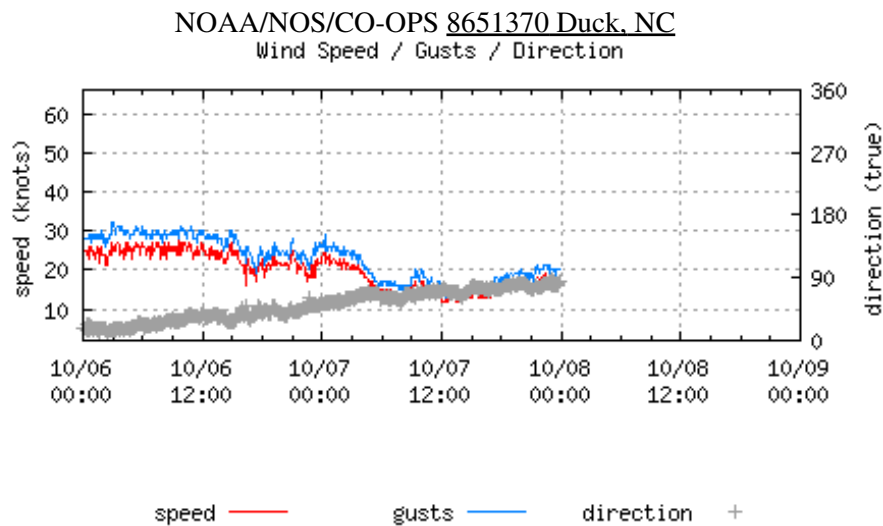
Predicted Tide — (Obs-Pred) —
Observed WL — MHHW —

Last Observed Sample: 10/07/2016 23:48 (EDT). Data relative to MHHW

Observed: -0.04 ft. Predicted: -0.90 ft. Residual: 0.86 ft.

Historical Maximum Water Level: Sep 18 2003, 4.13 ft.

Next High Tide: 10/08/2016 00:33 (EDT), -0.80 ft.



speed — gusts — direction +

Last Observed Sample: 10/07/2016 23:48 (EDT)

Wind Speed: 17 knots Gusts: 20 knots Direction: 84° T

Latest Water Level Observations on MHHW

Station ID	Station Name	Date/Time	Observed Water Level	Predicted Tide	Residual Water Level	24 Hour Maximum Storm Tide
8670870	Fort Pulaski, GA	10/07/2016 23:48 (EDT)	2.54 ft	-1.72 ft	4.26 ft	2.54 ft
8665530	Charleston, SC	10/07/2016 23:54 (EDT)	2.22 ft	-1.08 ft	3.30 ft	2.22 ft
8662245	Oyster Landing (N Inlet Estuary), SC	10/07/2016 23:48 (EDT)	1.07 ft	-1.26 ft	2.33 ft	1.34 ft
8661070	Springmaid Pier, SC	10/07/2016 23:54 (EDT)	1.27 ft	-1.24 ft	2.51 ft	1.27 ft
8720030	Fernandina Beach, FL	n/a	n/a	n/a	n/a	n/a
8720218	Mayport (Bar Pilots Dock), FL	10/07/2016 23:48 (EDT)	-0.35 ft	-0.92 ft	0.57 ft	3.28 ft
8720219	Dames Point, FL	10/07/2016 23:48 (EDT)	0.24 ft	-0.82 ft	1.06 ft	2.80 ft
8720226	Southbank Riverwalk, St Johns River, FL	10/07/2016 23:48 (EDT)	1.67 ft	-1.11 ft	2.78 ft	2.10 ft
8720357	I-295 Bridge, St Johns River, FL	10/07/2016 23:48 (EDT)	3.00 ft	-0.05 ft	3.05 ft	3.07 ft
8720625	Racy Point, St Johns River, FL	10/07/2016 23:48 (EDT)	3.85 ft	-0.15 ft	4.00 ft	4.41 ft
8658163	Wrightsville Beach, NC	10/07/2016 23:54 (EDT)	0.85 ft	-0.82 ft	1.67 ft	1.30 ft
8658120	Wilmington, NC	10/07/2016 23:54 (EDT)	-0.36 ft	-2.07 ft	1.71 ft	1.17 ft
8656483	Beaufort, NC	10/07/2016 23:48 (EDT)	0.55 ft	-0.72 ft	1.27 ft	1.18 ft
8651370	Duck, NC	10/07/2016 23:48 (EDT)	-0.04 ft	-0.90 ft	0.86 ft	0.49 ft

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